

**NETWORK GLOBAL EXPECTATION MODEL FOR RAPIDLY
QUANTIFYING NETWORK NEEDS AND COSTS**

ABSTRACT OF THE DISCLOSURE

5 In the network global expectation model of the present invention,
expectation values evaluated over the entire network are used as a multi-
moment description of the required quantities of key network and network
element (NE) resources and commensurate network costs. The network global
expectation model of the present invention naturally and analytically connects
10 the global (network) and local (network element) views of the communication
system, and thereby may be used as a tool to gain insight and very quickly
provide approximate results for the preliminary evaluation and design of
dynamic networks. Further, the network global expectation model of the
present invention may serve as a valuable guide in the areas of network
15 element feature requirements, costs, sensitivity analyses, scaling performance,
comparisons, product definition and application domains, and product and
technology roadmapping.